Initial Product/Process Change Notification

Document #:IPCN25207X
Issue Date:15 Dec 2023

Title of Change:	2mil Au wire to 2mil bare Cu wire conversion for SOT23 Low VCEsat transistors, mold compound change from Hitachi GE200F /Hysol GR640HV to Sumitomo G700LS.
Proposed First Ship date:	01 Aug 2024 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or NurulAliaFatin.Redzoan@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>
Marking of Parts/ Traceability of Change:	Changed material can be identified by date code
Change Category:	Wafer Fab Change, Assembly Change
Change Sub-Category(s):	Material Change

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Leshan, China	None
onsemi, ISMF Malaysia	

Description and Purpose:

This initial notification wants to notify customers of its use of 2 mil bare Cu wire for SOT23 Low VCEsat transistor devices at onsemi Leshan, China facility, while change the mold compound from Hitachi G200F/Hysol GR640HV with no Post mold Cure (PMC) to Sumitomo G700LS with PMC, top metal change from 20KA AlSi to 20KA AlSi with oxide island under emitter.

	Before Change Description	**After Change Description**
Bond Wire	2 mil Au wire	2mi bare Cu wire
Mold compound	Hitachi G200F/Hysol GR640HV	Sumitomo G700LS
Other Changes	No PMC	PMC
Top metal	20KA AlSi	20KA AlSi+ oxide island under emitter

Qualification Plan:

QV: NSV1C201LT1G
RMS#: 92841
Package: SOT23

Test	Specification	Condition	Interval
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL
UHAST	JESD22-A118	130°C, 100% RH, ~18.8psig, unbiased	96 hrs
TC	JESD22-A104	Ta= - 65°C to +150°C	1000 cyc
HAST	JESD22-A110	110°C, 85% RH, V=80% rated V or 100V max.	264 hrs
IOL	MIL-STD-750 (M1037)	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc
HTRB	JEDS22- A108	Tj= max, V=100% rated V, 1008 Hrs	1008 hrs
HTSL	JEDS22- A103	Temp.=165°C,no bias,2016hours	1008 hrs
RSH	JESD22- B106	Ta = 265C, 10 sec	-
SD	JSTD002	Ta = 245C, 10 sec	-

Estimated date for qualification completion: **20 April 2024**

List of Affected Parts:

Note: *Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the* ***PCN Customized Portal****.*

Part Number	Qualification Vehicle
NSS60201LT1G	NSV1C201LT1G
NSS40201LT1G	NSV1C201LT1G
NSS20201LT1G	NSV1C201LT1G
NSS1C201LT1G	NSV1C201LT1G
NSS12201LT1G	NSV1C201LT1G